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ABSTRACT

The handbook is intended to give regular vocational educators basic information about integrating disabled students into their classrooms. An initial section addresses common concerns of vocational teachers, including ways to overcome fears and raise the comfort level, safety, basic special education laws, roles of a vocational teacher in the Individualized Education Program meeting, reasonable accommodations, discussions with non-handicapped peers, and additional personnel. The next section contains information on six disabilities: epilepsy, learning disabilities, hearing impairments, mental retardation, mobility impairments, and visual impairments. Case studies are presented in which students describe their difficulties, teachers' attitudes towards them, and their school and work experiences. The concluding section outlines mini-activities involving role playing and simulation of disabled persons. A glossary, references, and bibliography are appended. (CL)

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OPENING DOORS: EDUCATING THE DISABLED

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Program described at the Annual Convention

of the

Council for Exceptional Children

(63rd, Anaheim, CA, April 15-19, 1985)

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(nourished the idea)

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(pruned, weeded, and shaped the idea into its physical form)

JIM, KATIE, & OWEN MAURER

(gave this creator peace of mind and support
so the idea could become a reality)

Introduction

The purpose of this handbook is to address teachers' questions and concerns about integrating special needs students into their regular vocational classrooms.

Information about students with disabilities can help teachers to "open doors" to their classrooms and, consequently, will also help disabled students to open their own doors to the future.

Common Concerns

This section is the result of interviews with vocational teachers who were posed with the possibility of including a special needs student in their classroom. There were asked about their feelings, reactions, and concerns.

The purpose of this section is to answer the kinds of questions that arose frequently in the interviews, and to address the concerns expressed by vocational teachers.

How can I overcome my fears?

THE "WHAT IF" SYNDROME

Practically everyone, at one time or another, is apprehensive and uncomfortable in the presence of a person with a disability. The nondisabled person may have misconceptions about disability or may experience discomfort because he or she doesn't know what to say or do. As a consequence, the tendency is to avoid people with disabilities in order to avoid discomfort.

Teachers may unconsciously fall into using the "what if" syndrome to avoid discomfort. The syndrome is characterized by the teacher dreaming up "a most extreme and unlikely setting of circumstances designed to prove the potential ineffectiveness of the person with a disability" (Bork, 1980, p. 11). For example, "What if the blind student burns himself or herself on the stove?" Or, "What if the student in a wheelchair reaches to turn on a machine and falls out of the wheelchair?"

Able-bodied students are generally not rejected on the basis of "what if" situations, so why apply the syndrome to students who have disabilities?

The "what if" syndrome has its roots in negative attitudes (Hicks, undated; Office of Personnel Management, 1979). Some negative attitudes are:

* APATHY: Many people are unaware of the problems that confront disabled students and, therefore, do not care about these problems and do not work to resolve them.

* ASSUMPTIONS OF INFERIORITY: Many disabled students are treated as if they were very young children. It is not unusual for teachers and administrators to speak about a disabled student in the third person even though the student is present.

* BACKLASH: Some teachers resent what they feel is pressure to admit disabled students into their classrooms.

* FEAR: Many people are uncomfortable around students with certain disabilities. They are

afraid because the student is different, and they are embarrassed by their response to this difference.

* FEAR OF CHANGE: Teachers may fear that the presence of a disabled student will disrupt classroom routine.

* FOCUS ON DISABILITY: When a student with a disability enters the vocational class, it is easy to overemphasize what the student will be unable to do.

* LOWERED EXPECTATIONS: Few teachers have realistic expectations of disabled students. Many teachers tend to underestimate skills and ability levels.

* PATERNALISM: School personnel -- even those with the best of intentions -- may have the mistaken idea that students with disabilities cannot take care of themselves and that they need special attention in the classroom.

* SPREAD OF EFFECT: The total person is assumed to be impaired by the disability. A student who is blind may be considered hard of hearing; a student who uses a wheelchair may be considered unable to write; a student who has a learning disability may be considered "slow." These are examples of the assumption that when one ability is lost, other abilities are also affected.

* STEREOTYPING: Preconceived notions interfere with consideration of individual characteristics. For example, the idea that "people who are deaf make good auto mechanics" may lead to all students who are deaf being advised to take auto mechanics.

RAISING YOUR COMFORT LEVEL

Despite our desires to respond appropriately with a disabled student, sometimes confusion, hesitancy, or misunderstandings arise. These problems may multiply if a student is enrolled in a vocational class without the instructor realizing a disabling condition exists.

Often there is a reluctance to be identified as a person with a disability -- for whatever reason. However, it is important that the vocational teacher and the student establish rapport as early as possible. An interview at the beginning of the semester is the best way to prevent small

problems from growing into larger problems. An interview can bring the teacher and student together with the express purpose of discussing the disability openly and honestly. The discussion should include methods of resolving issues and the planning of a strategy of accommodation that is mutually satisfactory (Crosby, 1984).

The following suggestions may help you raise your comfort level in teaching the special needs student (Howard, 1980):

* MEET THE STUDENT. This is your chance to ask the student what his/her special needs are and to gain an understanding of how the student expects to function in the classroom.

* ARRANGE A CLASSROOM TOUR. The student's tour of the classroom will determine if there is an accessibility problem.

* LEARN ABOUT THE HANDICAP. It is important to gather information about the student's disability and how the disability affects the student.

* ACCEPT THE STUDENT. Remember that the special needs student is first an individual; the disability is secondary.

* AVOID OVER-PROTECTION. Safety is always an essential concern in the vocational classroom, but the disabled student needs to learn through experience. Don't dismiss a project because there is a chance the special needs student could get hurt. Address the safety issue and build a safety component into the process of the project (e.g., assign a peer assistant), but allow the student the opportunity to grow and learn through the project experience.

* ADAPT THE TASK. Most special needs students do not need accommodations in the classroom. If there is an accommodation that is needed, ask the student for suggestions! Chances are the student will be able to adapt himself or herself to the task or situation.

* PROVIDE ADDITIONAL TIME. Be flexible as to when projects are due. Often a disability may interfere with a project or assignment being completed in the same amount of time as required of other students.

* ENCOURAGE INDEPENDENCE. Avoid doing a task for a student, and avoid asking an aide to

assist the student simply because he or she takes more time than others to complete the task.

* SEEK HELP. As a vocational teacher, you cannot be expected to know everything there is to know about yuur disabled students. Seek assistance from the special education teacher, counselor, reading teacher, and parents.

* BEWARE OF LABELS. Do not assume that all disabled persons are alike. Students with disabilities have varying abilities. They vary in competence, intelligence, motivation, and determination, just as their nondisabled classmates do.

* USE COMMON SENSE. An open mind, awareness, and a common sense approach are needed when integrating the special needs student in the vocational classroom.

What about safety in my classroom?

The barriers for disabled students wishing to enter vocational areas have been primarily attitudinal barriers based on a concern for safety. This barrier continues to stand because of false assumptions regarding the abilities and disabilities of disabled students.

Employers also cite safety as the reason they do not hire people with disabilities. In 1981, however, duPont Corporation conducted a survey of 2,745 disabled workers and found that "95% of disabled workers [were] rated average or above average in job safety compared to 92% for non-disabled workers" (duPont, 1982, p. 6).

Safety practices should be strictly enforced for <u>all</u> students. "Safety is a mutual responsibility and requires the full cooperation of everyone ... This cooperation means that each student and instructor must observe safety precautions and procedures. It is the responsibility of the vocational teacher to communicate and enforce safety rules. Safety measures recommended for disabled students are the same safety measures that are recommended for the non-disabled student" (Swanson & Steere, 1981, p. 235).

The following safety measures are recommended:

* Provide a safety orientation for all students. Include a specific system of emergency procedures that involves the special needs student. Strictly enforce the use of personal safety equipment.

* Review written safety instructions with the student to ensure that safety procedures are understood and can be carried out.

* Be comfortable in raising the safety issue. Discuss the limitations of the student and any fears you might have regarding safety with the student. For example, if you have a student who has a spinal cord injury, be aware that there may be no sensory perception in lower parts of the body. Therefore, you and the student will need to work out a few additional rules when a project calls for working with hot water, grease, etc.

* Be sure the student is aware of all facets of safety. Reconfirm his/her knowledge of safety rules by giving a safety quiz.

* Have the student demonstrate the proper use of equipment and/or have the student periodically enumerate safety rules and regulations.

* Impress upon the student that personal safety is, in the end, the responsibility of the student.

Safety is and should be a concern for the vocational teacher. Claiming safety reasons as an excuse as to why the student with a disability should not be allowed into the vocational classroom is a reflection of the teacher's misconceptions concerning the capabilities of disabled students.

What are the laws & why are they necessary?

Prior to the legislative mandates of the 1970's, people with disabilities were not expected, and in some instances not allowed, to enroll in regular public schools, attend regular classes with their able-bodied peers, participate in after-school social functions, or be gainfully employed.

The Rehabilitation Act of 1973 (P.L. 93-112), the Education for All Handicapped Children Act of 1975 (P.L. 94-142), and the Vocational Education Act Amendments of 1976 (P.L. 94-482) were three important pieces of legislation that gave individuals with disabilities options for the future.

THE REHABILITATION ACT OF 1973

This law applies to all programs receiving federal financial assistance and it contains three major provisions:

Section 502 -- Requires the elimination of architectural barriers that prevent use of buildings or facilities by disabled individuals.

Section 503 -- Requires affirmative action in the employment of disabled individuals. Every employer doing business with the federal government under a contract for more than $2500 must take affirmative action to hire handicapped people (President's Committee on Employment of the Handicapped, 1980).

Section 504 -- Requires that any institution receiving federal funds such as research grants, student federal financial aid, federal loans, or government-paid tuition for veterans or federal employees, must accept qualified individuals regardless of disability. The penalty for noncompliance can be

a loss of all federal monies.

THE VOCATIONAL EDUCATION ACT AMENDMENTS OF 1976

The intent of this legislation is to ensure that all persons will have access to training that is suited to their needs, interests, and abilities; i.e., that handicapped people be given the opportunity to acquire vocational education. The identification of handicapped persons must be based on the following conditions (Altfest, 1974, p. 2):

* The individual is not succeeding in a regular vocational program.
* The individual's disability is a contributing factor to his/her lack of success.
* The individual is identified by the effect, not the cause, of the handicap.

Individual states are required to spend at least 10% of their annual basic grants on programs and services for individuals with disabilities. These "set-aside monies" are to be spent for the "excess cost" of educating handicapped students in vocational education.

THE EDUCATION OF ALL HANDICAPPED CHILDREN ACT OF 1975

The regulations for this law state, "Each public agency shall take steps to ensure that its handicapped children have available to them the variety of educational programs and services available to nonhandicapped children ... including vocational education." A written Individualized Education Program (IEP) is mandated for each handicapped student (Howard, 1980).

CURRENT STATUS: BLEAK STATISTICS

Despite the legislative mandates, statistics on the training and employment problems of disabled persons show that there is still a long way to go (Bowe, 1980; Levitan & Taggart, 1977):

* 40% of the adult disabled population are employed, as compared to 74% of the nondisabled population
* 85% of those disabled individuals who are employed earned less than $7000 per year, and 52% earned less than $2000 per year

* 76% of all disabled women are unemployed

* In fiscal year 1978, disabled individuals represented 2.1% of the total enrollment in secondary vocational education and 1.7% were represented in postsecondary enrollment

Vocational education should be viewed as a strategy to improve the above statistics by providing disabled students with the necessary competencies to enable them to become "qualified" for employment.

Why should I attend an IEP meeting?

Vocational teachers may feel they know very little about teaching disabled students and may feel anxious about being part of a team that writes the Individualized Education Plan (IEP). On the other hand, vocational teachers need to be part of the team that attends the IEP meeting because they do know the vocational content area and can assist the special educator in writing the student's learning objectives.

Two major purposes of an IEP are: (1) to set out learning goals for the student's achievement; and, (2) to set out services the school district will provide to help the student meet the learning goals.

The IEP must contain the student's:

* present level of performance
* annual and short-term learning goals
* participation in the regular school program, including when, where, and how much the student will be with nondisabled students.

It will also include:

* what special education and other services will be provided to accomplish the learning goals
* when special services will begin and for how long the service or program will be offered
* when and how the student's performance will be evaluated
* when and how the effectiveness of the student's program plan will be evaluated

Vocational educators often feel that their classrooms are dumping grounds for special needs students. The IEP meeting is the chance for the vocational teacher to voice concerns and to request support from the special education teacher. It is also an opportunity to exchange ideas, implement teaching goals, and design a vocational program for and with the student with a disability.

How do I provide "reasonable accommodations" for special needs students?

The requirement for "reasonable accommodation" can often be met by having a degree of sensitivity, patience, and a sense of responsibility towards the special needs student in the vocational classroom.

In order to provide reasonable accommodation to the disabled student, find out the individual's limitations as they relate to course requirements. The best source for this information is the student. Do not assume that expensive modifications are necessary. Modifications should enable the disabled student to work next to, and use the same facilities as, other students.

Adapting instructional techniques is one way the vocational instructor can accommodate the special needs student. The following techniques can be used for all students:

* Reinforce instructional information! Write out instructions on paper for all students, then be sure to read the instructions out loud.

* Make out a syllabus. Include topics to be covered, test dates, and due dates for assignments. This will give the student the opportunity to plan ahead.

* Provide a student note-taker, if necessary. Have a student in the class use carbon paper when taking notes. These notes can then be used by students who have difficulty manipulating a pen, students who use an interpreter, or students with auditory memory difficulties.

* Give extended time for tests. How much extra time is to be provided without giving an unfair advantage can be discussed with the student and the special education teacher. An extra 30 to 45 minutes for every one-hour test is suggested.

* Require oral reports for those students who have difficulty writing. An outline of the

oral report should be given to the teacher to be sure that key concepts are covered.

* Test often (at least weekly).

* Use large print on hand-outs, when possible. Double spacing is also important.

* Avoid forcing students with specific problems to engage in tasks that will set them up for failure; e.g., reading aloud, writing on the board.

* Use talking books and recordings for the blind with students who are learning disabled and those who have difficulty lifting, holding, or turning the pages of a book.

What do I tell the "other" students?

Classmates need to treat the student with a disability in a normal, positive manner if the mainstream experience is to be successful. It is not enough to mainstream a student without providing the other students information designed to increase their knowledge about disabilities, and it is not enough to run a class on the subject of disability without contact with disabled students. The most effective approach, according to Anthony (1977), would involve providing information on the subject in classes in which the disabled students participate.

Non-disabled students may perceive the student with a disability as receiving preferential treatment if they are unaware of the presence of a handicapping condition, and may exclude that individual from their extracurricular activities. The following guidelines may be helpful to the teacher (Weisgerber, 1980):

* Seek advice from the student with a disability. The student has to deal with awkward situations daily. Perhaps he or she can suggest a tactful route for you to follow -- e.g., humor, matter-of-fact. The student may wish to tell fellow students about the disability him/herself.

* If there is a hidden handicap, such as epilepsy, there may be pressure not to reveal anything. Be aware if the condition causes any acute attacks or if the condition can be aggravated by innocent "horse-play." If so, you need to inform classmates.

* The mere existence of a disability may not mean a person needs to be identified. A student with an artificial leg or a student who is legally blind may function effectively without special attention.

* The individual with a disability may want you to share what his or her special needs are in relationship to assistance needed in the classroom (e.g., needs a copy of notes, or needs assistance when books are dropped), but does not want you to share the <u>reasons</u> for confinement to a wheelchair or how the student

became blind, etc. Respect the student's privacy.

* Do not embarrass the individual.

* You may want to assign a "peer assistant" for the first week until the student becomes oriented to the classroom routine.

* Compile a resource library of filmstrips, tapes, or other media to share with the students regarding "disability".

* Set an example by demonstrating the behavior you want the students to perform.

Every person has limitations and is handicapped in one way or another. In our society, some limitations are more easily accepted than others. The more interaction that takes place, the more comfortable we will feel with each other, and thus the groundwork is laid for an increase in communication. It is through communication that our prejudices and misconceptions can dissolve.

Who are all these extra people in my classroom?

THE AIDE

Some students will need to use an aide in the classroom because of motor difficulties such as holding a pen, reaching for equipment, or maneuvering in the classroom. The aide functions as a motor extension of the disabled student. The student does the thinking and gives directions; the aide manipulates equipment and follows directions.

The special needs student should function as independently as possible. The aide is not and should not be part of the classroom dynamics. The aide should not be asked questions regarding the student's progress. All communication should be directed to the disabled student and the disabled student should be expected to speak for him/herself.

If the teacher feels the aide is overstepping ethical boundaries and doing too much for the student, then the teacher should speak to the student and ask that the aide assume a more auxiliary role.

THE TEST WRITER OR SCRIBE

The test writer functions as a "hand holding a pen" and, in the case of a learning disabled or visually impaired student, may also function as a test reader. It is <u>not</u> the role of the test reader/writer to interpret a question for the student or to give his or her opinion as to the correctness of an answer. The student is responsible for reviewing the test product for accuracy in answers, grammar, spelling, and punctuation.

THE GUIDE DOG

A guide dog may be used by a student who is blind. The dog is not a "pet," but rather an essential and integral part of the student's life. The dog should not be touched by other people unless permission is given by the student. The student is responsible for cleaning, watering, feeding, and relieving the dog. When the dog is not "at work," the dog will usually lie at the person's feet. If the dog is in the

teacher's way, it is the teacher's responsibility to inform the student so s/he can take action to move the dog.

THE INTERPRETER

The interpreter is present to facilitate the communication process between the hearing impaired student and the hearing world. The interpreter is the student's ears. The interpreter operates under a code of ethics that dictates that he or she sign everything that is being said in the class and keep confidential any information shared in the interpreting situation. Don't say to the interpreter, "There is no need to sign what I'm going to say for the next five minutes, it really isn't important to know." The interpreter should not be asked how he or she likes the class, nor should the interpreter be part of the class discussion.

Many teachers do not like the idea of having an interpreter in the classroom because it is believed that he or she will be too "distracting" to the rest of the class. While an interpreter may capture the attention of the class initially, this usually lasts only for a short period of time. The teacher should be informed by the hearing impaired student where the interpreter will be situated in the classroom.

Disabilities: Definitions & Interaction Tips

This section contains descriptions -- definitions, symptoms, prevalence -- of the various disabilities that might be encountered in students enrolled in vocational classes.

The interaction tips are based on interviews with persons who either have, or work with persons who have, the disability described.

Epilepsy

DEFINITION

Two out of every 100 people in the United States have epilepsy (Office of Personnel Management, 1979). Epilepsy is not a disease, but "a symptom of an intermittent imbalance of electrical activity of the brain characterized by recurring seizures" (Foster, 1978, p. 58).

A person who has epilepsy is not incapacitated by the disability except during the epileptic episodes (Karan, 1972). A seizure is a function of overactivity in a group of brain cells, which causes a temporary change in the person's conscious state and a loss of muscular control. A seizure can vary from a complete blackout to a momentary lapse. It can last from a few seconds to a few minutes. Sometimes a seizure can come without warning, although most people do get an indication, called an aura, that a seizure is on the way (Epilepsy Foundation of America, 1980). The aura can manifest itself in a number of ways, such as a sound, a smell, or a color.

Grand mal seizures are characterized by complete blackouts, usually of short duration. The muscles become rigid and movements are jerky. Petit mal seizures may be characterized by a temporary loss of consciousness or an impairment of consciousness when, for example, the person may stare into space. Psychomotor seizures are characterized by altered states of mind and motor movements of the body. The person may look as if he or she is conscious and functioning, but in reality the person is not in a conscious state and, therefore, not functioning. The person may talk gibberish, may nod the head quickly, or move the body rhythmically. Medication can control seizures, either partially or completely, in approximately 80% of persons with epilepsy (Office of Personnel Management, 1979).

Epilepsy

INTERACTION TIPS: WHAT TO DO DURING A SEIZURE

1. Do not try to restrain the person's movements or give anything to drink.

2. Do not place anything in the person's mouth. The person cannot swallow his/her tongue.

3. Move hard, sharp, or hot objects out of the person's way.

4. When convulsive movements have ceased, turn the body and head to one side. This will assure unobstructed breathing. Do not be alarmed if the person having a seizure appears not to be breathing momentarily.

5. Do not try to revive the person. Let the seizure run its course.

6. Record the details of the seizure, such as time of onset, length of seizure, and behavior.

7. If a person seems to be having a series of seizures, whereby the person appears to be in a fixed seizure state, or if one seizure lasts longer than 10 minutes, call for medical attention.

8. After a seizure, it is normal to be sleepy, and the person may wish to lie down for a short period of time.

9. If the seizure occurs in a public place or busy work area, keep curious bystanders away. It is very uncomfortable for the person to come out of the seizure and have to face glaring stares and questions.

10. Remember, the person is a normal, functioning individual except during a seizure.

11. If the person is to work with heavy or potentially dangerous equipment, find out the status of epilepsy; i.e., controlled or not controlled seizures.

(Epilepsy Foundation of America, 1980; Prichard, Note 1).

Learning Disabilities

DEFINITION

People who have learning disabilities experience difficulty collecting, sorting, storing, and expressing information through their senses. They are capable of learning and performing, as they have average or above average intelligence, but learning has been affected by the problems they have with processing information. This inaccurate sensory information may lead to problems in speaking, listening, reading, and writing.

Two broad categories of learning disabilities and their observable behavioral characteristics are described below.

VISUAL DEFICITS

Visual deficits cause problems in detecting, perceiving, understanding, and retaining information that is presented visually. Some observable characteristics are (Altfest, 1975,):

* Looking up often when copying from a distance
* Avoiding close desk work
* Holding a book too close or bending over paper when writing
* Experiencing difficulty in following written directions, but following verbal instructions successfully
* Frequently forgetting things seen
* Being easily distracted by surrounding activities
* Repeating and/or omitting words when reading
* Confusing words that look alike
* Confusing foreground and background

AUDITORY DEFICITS

Auditory deficits cause problems in detecting, perceiving, understanding, and retaining information that is presented through the auditory channel. Some observable characteristics are (Altfest, 1975):

* Giving inappropriate answers to simple questions
* Understanding better at a one-to-one level than in group situations
* Frequently asking for oral instructions to be repeated
* Talking too loudly or too softly
* Being easily distracted by noise
* Not attending to teaching instruction if there is background noise present
* Not locating the direction or source of sound
* Not distinguishing between similar sounding words (e.g., pen-den, way-pay)
* Difficulty in remembering what has been discussed in class

It is important to remember that not all students with learning disabilities are affected in the same way. Most, if not all, will use a combination of learning strategies to compensate for their disabilities.

Learning Disabilities

INTERACTION TIPS

1. If the student gives a seemingly unrelated response to your question, ask "What did you hear me say?" If the answer is incomplete or incorrect, fill in the gaps.

2. List the steps of a process on a study sheet. Allow the student to refer to it as he or she works.

3. Design exams so that knowledge is assessed rather than reading, writing, or spelling ability.

4. Avoid using computer-scored answer sheets, as it may be difficult for learning disabled students to align the responses with the questions.

5. Allow more time for responses.

6. Avoid the use of colloquialisms or idiomatic language.

7. Be sure you have the student's attention when giving important information. Often a touch on the arm, calling him or her by name, or saying "What I am going to say is important" will be enough to get the student to focus attention on you.

8. Give directions in sequential steps.

9. If the student is a visual learner, use pictures, flow charts, printed materials, and slides. Avoid verbal directions.

10. If the student is an auditory learner, use tapes, oral directions, and group discussion. Avoid visual directions.

11. Express yourself in a direct manner. Avoid nonverbal signals.

12. Allow the student to repeat instructions. Often the student needs to hear him/herself say the instructions in order for the information to be processed. This also allows you to verify the correctness of the instructions.

13. Use <u>demonstrations</u> as a teaching strategy.

14. Give criticism in a positive manner so the student can learn from his or her mistakes. Be lavish with your praise, as it is essential to the student's success in the classroom.

15. Do not clutter your hand-outs. Double-space printed material.

16. Verbally reinforce what is written down.

(Brown, 1980; Howard, 1980; Brigham, Note 2)

Hearing Impairments

DEFINITION

"According to a 1971 census, there are 13.4 million persons in the United States with hearing impairments, ranging from mild to profound hearing losses. Of these, 1.8 million are deaf; i.e., even with a hearing aid, they cannot hear and understand speech. The rest are hard of hearing. Their hearing, although defective, is functional" (Office of Personnel Management, 1979, p. 39).

How a person is affected by a hearing loss depends on the age at which the loss occurred and the degree or range of the hearing loss. If a person is born deaf, he or she has never heard the spoken word, but may be able to respond to vibrations or loud noises. The person's speech may sound monotonous and mechanical, and you may need to <u>listen</u> intently to the person at first. Gradually, you will learn the person's speaking style and it will be easier to understand. If the hearing loss occurred after the age of five (after language and speech have already been acquired), the person's speech will be more developed and easier to understand.

Deaf people as a group are no less intelligent than any other group of people. But because so much learning takes place through hearing, the hearing impaired face more difficulties in learning.

Some common communication strategies used by the deaf are lipreading, sign language, finger spelling, and writing. Not all hearing impaired persons can read lips, and even a practiced lipreader can understand only 30-40% by watching a speaker's mouth (Office of Personnel Management, 1979). Hard of hearing individuals often communicate without the use of manual language and lipreading, and they often have the ability to hear and understand the spoken word, although the words are not always clear and may be distorted.

If a hearing aid is worn, do not assume that normal hearing is restored. A hearing aid amplifies <u>all</u> sound. If background noise is present during speech, the hearing aid will amplify both the background noise and the spoken word.

Hearing Impairments

INTERACTION TIPS

1. Get the person's attention before speaking. A tap on the shoulder or a wave of the hand, for example, will suffice in gaining the person's attention.

2. Face the person directly.

3. Do not sit directly in front of the light, as that could make your face difficult to see. Lipreading is easier if the person reading does not have to look into the light.

4. Do not over-exaggerate lip movements. Do not mumble or chew gum. When communicating, avoid turning your head or putting your hand in front of your mouth.

5. Keep beards and mustaches trimmed. The majority of words are lipread using the upper lip.

6. Use facial expression and gestures when speaking, as they are good clues to meaning.

7. Often you may find the person looking at you intently and at a close range. Relax, he or she is only trying to read visual cues. It is important that you don't look away -- the person may think the conversation is over.

8. If you know finger spelling and some signs, use them. The person will appreciate your efforts to communicate.

9. If the hearing impaired person asks you to repeat or does not understand what you say, rephrase the thought rather than repeating the same words, as it may be the combination of words that is difficult to lipread. Use complete sentences.

10. If you don't understand something, admit it. Ask the person to rephrase. Use paper and pencil if needed. Remember that the person may use unusual sentence structure.

11. If the student is using an interpreter, speak directly to the student and do not use the third person (e.g., "Tell him that...").

12. If you have something important to say, say it to the person and not in a large group. You don't want your voice to compete with the background noise. The highest comprehension level is one-to-one.

13. Be positive, brief, and matter-of-fact. Other students will take their attitude from you.

14. Provide an advance outline for class sessions. This will delineate the context and facilitate discussion. It will also provide an opportunity for the student to get technical terminology defined.

15. Use classroom questions, and rephrase information to provide continuous feedback.

16. Help the student participate in the classroom by directly requesting input.

17. Use visual presentations whenever possible.

18. Keep "visual noise" (e.g., a blinking light) down to a minimum.

(Howard, 1980; Murphy, Note 3)

Mental Retardation

DEFINITION

"Mental retardation involves inability to use one's mind for thinking, figuring, or remembering as well as someone who is 'normal'" (Office of Personnel Management, 1979, p. 50). There are approximately four to six million people who are retarded in the United States. Individuals differ in their patterns of strengths and weaknesses, but their overall capabilities fall short of what is expected of people of their age and experience. Individuals who are retarded are not mentally ill, although one-third of retarded persons do suffer multiple handicaps, epilepsy, cerebral palsy, and mental illness.

A person who is mentally retarded may exhibit one or more of the following (Altfest, 1974):

* Immature or impulsive behavior
* Behavior that seems inconsistent with chronological age
* Short attention span
* Distractibility
* Poor motor ability (e.g., trips over things)
* Short memory retention
* Poor language development (e.g., uses short, unfinished sentences)

The mentally retarded student may need more time and resources to learn a skill. After acquiring a skill, however, the student will be able to perform it at acceptable levels of quality and speed (Howard, 1980).

Mental Retardation

INTERACTION TIPS

1. Talk to the person as you would to anyone else, but be more specific.
2. Demonstrate what is to be done and avoid abstractions.
3. Ask questions to be sure you are being understood.
4. Ask the person to explain what needs to be done.
5. Ask the person to do the task while you observe.
6. If possible, identify one person who will be available to answer questions or to whom the student can go for help.
7. Praise the student for the work accomplished.
8. Whenever possible, use visual aids to reinforce verbal instructions.

(Ingram, Note 4)

Mobility Impairments

DEFINITION

Approximately 500,000 people in the United States use wheelchairs for mobility. This mobility aid is used for a variety of reasons: paralysis, muscle weakness, nerve damage, stiff joints, low energy levels, or severe breathing problems. Accidents such as falls, car crashes, gunshot wounds, sports injuries, and obstetrical mistakes are major causes of paralysis (a loss of voluntary action). Other causes of paralysis are strokes, tumors, polio, muscular dystrophy, and multiple sclerosis (Office of Personnel Management, 1979).

Not all wheelchair users are paralyzed. Many can walk with the use of other mobility aids, such as canes, walkers, and crutches. Speed and ease of mobility are increased with the use of a wheelchair and, therefore, many persons prefer to use one.

Mobility Impairments

INTERACTION TIPS: GENERAL

1. Sit down, if possible, so you are at eye level. Allow the wheelchair user to make eye contact without looking up at an angle.

2. It is OK to use words like "walk," "run," "have a seat," or "stand there."

3. Talk directly to the person. Do not use a third party as an intermediary.

4. Do not assume the person is "sick." Treat the person as a healthy person.

5. Many people can "transfer" (slide out of their wheelchair into a regular chair, car seat, etc.) by themselves, but many who use motorized chairs cannot. Ask if the person needs help and ask <u>how</u> to help.

6. If it looks as if someone is needing assistance, <u>offer</u> to help. If the person needs help, your offer will be accepted. If the assistance needed is technical, let the person tell you what needs to be done. Do not assume you can just grab a chair and hoist it up steps -- strategy is involved and the wheelchair user is the source of information.

7. Don't grab, fiddle with, lean on, or put your hands or feet on the person's wheelchair. This is part of the person's <u>body space</u> and such action is inappropriate.

8. If a person has a muscle spasm in the leg, the leg may start jerking and often just moving around may stop the spasm. There is nothing the bystander can do to help curtail the spasm. If you see the person's foot off the footrest of the wheelchair, ask if he/she is aware that it is off and if assistance is needed in repositioning the foot back on the footrest.

(Foth, Note 5; Gefter, Note 6; Molina, Note 7; Montgomery, Note 8).

INTERACTION TIPS: OPENING A DOOR

1. Ask if the person needs assistance to open the door. If the answer is "no," do not insist. If yes, go through the door first, then stand behind the opened door while the disabled person goes through.

2. Do not hold the door open while you stand in the door opening. This forces the person to go under you ("London Bridge" style) and may result in your toes being run over by the chair.

INTERACTION TIPS: BOARDING AND UNBOARDING AN ELEVATOR

1. Let the wheelchair user on first and allow turn-around room -- no one likes facing the back wall.

2. The disabled individual will either tell you the floor to press or may do it herself/himself. Do not assume the disabled person cannot or will not press the elevator button for you as well.

3. When unloading, remain behind and press the "open" button. Allow the disabled individual to leave first; otherwise, the person may not have enough time to leave the elevator.

4. Do not hold your arms across the elevator doors in an attempt to keep them open. This method does not allow the person enough room to maneuver and may result in your toes being crushed or cause the person on crutches to fall.

Visual Impairments

DEFINITION

Visual impairments include problems ranging from limited central vision to limited peripheral vision to total blindness. Over 75% of all "blind" persons have some usable vision. Therefore, the term "blindness" should be reserved for complete loss of sight. The term "visually impaired" is a better description of people whose sight is affected. "Legally blind" is defined as a person who, with vision corrected as best as possible, can see less at 20 feet than can a person with normal vision at 200 feet, or one whose field of vision is limited to a narrow angle, usually less than 20 degrees (Office of Personnel Management, 1979).

Visual acuity figures, however, do not tell you how functional a person is. For example, one person may be able to read regular printed material by bringing the material closer to the eyes, another person may use a magnifier, and yet another may use large print or Braille materials.

Visual Impairments

INTERACTION TIPS

1. Allow your student to become familiar with the physical environment of the classroom and the location of equipment prior to the first class session.

2. Recite out loud while writing on the blackboard or when using an overhead projector.

3. Address your blind students by name when calling on them.

4. Describe clearly what is being written on the board. Avoid ambiguous words and phrases such as "over there," "this," or "that." Use nouns instead. When outside, use compass directions.

5. If slides or overhead projections are used, describe them in a systematic way to orient the student who is blind. Be consistent in your description of visual presentations by always proceeding clockwise.

6. Consistency in the physical arrangement of the work area is important. If you do make changes, inform the visually impaired student.

7. Do not play "Can you guess who I am?" Identify yourself when speaking to the person. This gives the blind person a chance to link your voice, name, and relationship.

8. If you leave the area, particularly where the noise level is high, tell the person you are leaving the room.

9. It is OK to say "look," "watch," "I'm glad to see you."

10. If your student uses a guide dog, he or she is responsible for cleaning, watering, feeding, and relieving the dog. DO NOT TOUCH THE DOG without asking permission.

11. Do not yell — the blind are not deaf.

12. Treat the student as a person with full mental capacity.

13. If grooming isn't acceptable, mention it, but be discreet.

14. Provide time for mobility and orientation training. This training will enable the blind person to move within the class environment independently.

15. If you are to act as a sighted guide, let the person take your arm. Do not stiffen your arm, but carry it normally. The person will follow the motion of your body. Walk about one-half step ahead and be sure to identify steps and curbs as you approach them. If you come to a narrow area, hold your arm closer to your body. The person will understand that a narrow place is ahead.

(Gefter, Note 6; Ward, Note 9)

Case Studies: Meet the People

Teachers often have concerns about students with disabilities entering into the vocational classroom. But those concerns often exist because of a lack of experience in working with disabled students. The anxieties associated with such concerns will often be dispelled after the disabled student is enrolled in the class and it is realized that the anxieties were baseless.

This chapter is the reader's opportunity to gain invaluable information. It is invaluable because individuals with disabilities have shared their experiences with the past -- both successes and failures -- and their experiences with the ever-present battle between people's attitudes and the quest for acceptance.

Kathy

I have a visual impairment called retrolental fibroplasia, a condition usually caused by giving a premature baby too much oxygen at birth. It causes growth of scar tissue and deformation of the eye itself. The condition is not reversible at this point.

I went to school in a number of different kinds of school settings -- a residential school, a day school, a public school with resource room assistance, and a public school with an itinerant teacher. The itinerant teacher came daily and would spend an hour and a half going over my homework, transcribing my work so teachers could read it. Otherwise, I was incorporated into the regular public school program. My public school education went mostly from the 5th to 8th grade. For high school I was placed in a residential school.

TEACHERS' ATTITUDES

When I was in the public schools, teachers reacted to me in several ways. There were some who didn't make a big issue of my blindness -- they really wanted me to fit in. There were some who really got upset that I was in the classroom. In fact, there was one teacher who refused to teach me at all. I had just gotten into her English class and I brought a paper to her that had been corrected (I couldn't read the comments) and I asked her "Could you please tell me what I've done wrong?" And she said, "What's the matter? Do you think because you're blind you have to get an A?" And from that day until the end of the semester, she never said one word to me. She never graded any of my work. She never explained what she was doing. I lost out on a whole semester of English which hurt me very much when I moved into the next grade and couldn't keep up with the rest of my class.

There were other teachers who just expected me to keep up and to participate -- which was great! And there was one teacher who didn't understand the use of a slate and a stylus. On the first day in his class I was trying to write with this stylus on a hollow desk, and when I tapped on the top, it sounded like I was pounding on a drum. (A slate and stylus is a piece of metal equipment that uses pressure from your hand into the equipment to form the letters.) What would be a little tiny click on an acoustically prepared

surface is a bang on one of those metal desk tops. The teacher really got upset with me doing this in his class and rightfully so. It really was a disruption to the class. But once he understood the problem, we made different arrangements that corrected the situation. When the research papers were due, he expected me to find my own means to get the reading done and to get those papers in on time. It was difficult, but the best way to go.

Once the blind person accepts his handicap, the biggest HANDICAP he faces are the ATTITUDES of the sighted persons around him. A newly blinded person is going to have to face the situation that, "Hey! This is the way it's always going to be." The person can go on -- life can go on. In some areas, it's not going to be as easy as it was. That is reality. But you gotta do with what you got. For me, as I grew up, I was expected to fend for myself. I was not given a whole lot of compensatory training. I couldn't ride the two-wheelers like the other kids did. I was expected to devise my own entertainment and that was very hard. But as a result, I now have very few boring moments because I have learned to fill my time with things that are fulfilling to myself.

In public school I did pretty well getting the assignments done. However, I developed problems in learning social skills. There were a number of things totally unrelated to blindness that affected my adjustment. I was very conscious of being a spectacle because I had been so hit with the idea constantly -- you must not look blind, you must not act blind, you must not do anything that attracts attention to yourself. So then when I see six kids standing around me who think that I don't know that they are there and staring at me, I would want to crawl into a hole.

VOCATIONAL DECISIONS

My biggest problem in high school was looking at the outside world and not knowing how to fit into it. My biggest obstacles were sighted people. When I started doing my vocational search, the most frequent words I heard from the vocational counselor for the blind were, "You can't do it, you're blind." Because he kept saying, "You can't," I became totally unreasonable. So when I asked him, "What is it you want me to do?" he gave me alternatives that I simply hated. I hated the thought of being a secretary, of becoming a psychologist. They wanted me to become a musician, a blind stereotype where there are absolutely no jobs.

It has just been a running battle to find a place where I would fit. Does there need to be an element of reality? Yes. I was working under a number of misconceptions. I could have done far better had there been an alternative way

of finding out those misconceptions -- probably by observing people in their work. Then I would have realized -- roughly enough, believe me -- that there were problems. And yet, I could have possibly figured out ways to overcome those problems.

Instead of allowing me to make vocational decisions, decisions were made for me. I did not want to go to college. I wanted to make a firmer vocational decision before committing myself to college. I didn't have that option. I was simply shipped off to a prep school, which I hated. I was then plopped at a university -- literally dropped off in the middle of my room at the dorm with a "Here you are at the University. This is your class schedule. This is what you will take."

I wasn't given any preparation on how to go about getting textbooks, how to go about getting readers, where to get equipment if I needed it. If I haven't learned how to deal with people in the area of visual impairment who are saying, "You can't do this, you're blind," how then am I going to deal with teachers who are saying, "You can't take my class because you're blind"?

I had a couple of neat teachers in college who helped. One of them was in horticulture, an area I really wanted to explore. He taught me my first official gardening class and I took the class the same as everybody else. When it came time to take a test, I took the tests face to face, which can be a bit unnerving, depending on the teacher. There was a student in my class who was also in training as a special education teacher. She went to my Voc Rehab Counselor and said there was no way this student can understand beyond rote memory what this teacher was teaching. Well, I'll tell you, for a person who can't understand the concepts, I held a job in that field for two and a half years!

I got a better vocational counselor in my sophomore year in college -- a counselor who was willing to let me start making my own decisions and was willing to let me explore career areas that I was interested in. So I checked out journalism and I found the field fascinating, with a lot of possibilities. I did a six-week internship at the Tucson Citizen where I did the stories, I did the features, I did the deadline news. I enjoyed it, but I realized in order to be really good at it I needed to read and read quickly.

Some years later, I decided to go into public relations journalism, after completing a successful three-month internship at United Way. I made this my final goal.

BUSINESS CLASSES

Typing is one of the key things you learn in General Business. The teacher should forget that the person is blind. A blind person does not need a special typewriter. I learned on a manual typewriter. There is no need for special equipment, nor is there a need for a special tutor. The keys do not need to be specially Brailled. Let the person have a chance to feel that keyboard! Make him press the keys and note the difference between the shift key versus one of the typing keys. Use stationary parts as a reference point, such as the shift key on the left-hand side to show where the A is on the home row. Basically, you teach him or her the same way you teach anybody else! Under your little finger is the A, under the next finger is an S, under your middle finger is a D, and under your index finger is an F. Those are your reference points. And so on.

There is no reason why a blind person cannot learn to use all parts and functions of the typewriter. The skills are the same whether you are sighted or blind. A blind person is not going to be able to work from a printed source, but will work from a Brailled source or a taped source. Brailled typing books are available that the school district can help you find.

There will be a problem with proofing. But if the student is in an advanced class and shows promise in the work skills, there is a possibility of getting an Optacon for that student whereby he will then be able to proof his own work. An Optacon is a reading unit where the blind person takes a small camera, runs it across a page of print, and with his other hand reads on a small plate letters that are transmitted from the camera. On a lens-mounted typewriter, the camera is mounted in a lens which is mounted on an electric typewriter. The student, by manipulating the carriage and the roller, can read and correct his sheet of work. An Optacon costs around $3500 and a lens-mounted typewriter costs around $1000. [Author's note: This could be funded through Vocational Education "set-aside" monies.]

People! Don't be afraid to use the equipment you have. A blind person has ears, two hands, and a mouth. That mouth may need to be taught to ask questions. If you don't understand, ask! "Hey, how many lines down from the date did you say I start the salutation?" "Do you start the paragraph five spaces in for a block letter or on the margin?" These things do not need sight to be taught. They can be taught through the ear. The blind person may need to sit down with a tape recorder during the teacher's explanation. But he'll learn, and he'll learn as effectively as a sighted person. I know because I have done business typing and secretarial work.

HOME ECONOMICS CLASSES

Basically, the skills a blind person has to use are the same skills a sighted person has to use. The only modification I have in my kitchen is a piece of tape on the stove and a piece of tape on the oven knob. When they are both lined up, the stove is off. Everything else is relational. I use no special equipment. Although there is quite a bit of special equipment offered, most of it is unnecessary.

Don't be totally terrified that a blind person is going to get burned on the stove. A blind person is just as concerned about safety as everyone else. If the blind person is going to survive, he or she will have some common sense, which means she won't be putting her hand in the middle of a hot burner. You can feel heat a long time before you put your hand on something.

Just by the sense of touch, you can learn what is going on. For example, if I put on a pan of hamburger to fry, I put my pan on the stove first, with my meat in it, before I turn the stove on. I can hear by the way it sounds when it is done, or I know by the length of time when it should be done. I can take a fork and touch the top of the meat. Raw hamburger feels much different than cooked hamburger.

The deep fryer is the only unit that I've tried to work with and have found it to be <u>dangerous.</u> I will not use one -- you can't see the grease, you can't see if you've flipped something over or not, you can't take something out and touch it because of the hot oil.

As far as serving customers in a public setting, I couldn't do it because I don't have a good sense of a straight line. But that doesn't mean other blind people couldn't do it. Serving at a counter like a small donut shop is different. Right now, I'm trying to get in a small donut shop doing just that. My biggest battle is not can I do it, but will the owners <u>let</u> me do it.

I learned to use a sewing machine in high school. I thread a machine the same way a sighted person threads a machine, with no additional tool except perhaps a needle threader. Once a pattern is cut out, if someone helps me line up the darts, I can sew it. Cutting out a pattern may be a bit difficult for a blind student, but there are ways you can get around it. If a sighted person will cut out the paper pattern, a blind person can lay tape along the edges of the paper pattern and cut out the cloth. Alignment with certain kinds of fabrics is going to be impossible; for example, plaids and stripes.

GENERAL SUGGESTIONS FOR VOCATIONAL EDUCATORS

1. Use your innovative skill instead of your fear!

2. The blind person will have a better sense of belonging if the person is kept in with his or her sighted classmates, taking the same falls that they take and getting up again. Expect that student to participate with the rest of the class.

3. Let the blind student suggest ways that difficulties can be overcome.

4. If verbal explanations do not suffice, get some heavy paper, lay it down over a couple of magazines, and draw out the form or concept you are trying to get across. Use a ball point pen and press very hard. The paper will pick up the lines without tearing.

5. If there is absolutely no way to get around an obstacle, then you substitute! The student could learn something different that is more appropriate for him or her to learn and that demands the same level of skill but on a different area.

6. If you can get class hand-outs to the student the day before you use them, it would be the student's responsibility to get them read or transcribed.

7. If a text is unavailable for the blind student, then that student should be allowed to ask his or her classmates to volunteer to read the assignment for the student. The assignment can be read in person or on tape. Tape has the advantage because then the student has it for reference. If there are notes to be taken, the student can go back and take them after the other student is gone. Everybody in the class is going to have to read that same material, so it shouldn't be that difficult to get volunteers.

8. Check out the blind person's abilities, skills, and sense of self as you would check out anybody else. "Why do you think you can do this?" "Do you know what is involved in the job?" "How can you get around this limitation?"

9. Blind people can learn! We have the same conceptual abilities as sighted persons. The teacher's willingness to help and willingness to learn will be the strongest point with the blind student.

Brian

We found out about my hearing impairment in first grade during routine screening of hearing done at the schools. I realized right from the start that I couldn't hear like the other kids. I would try and get by on the hearing test by faking it. But finally in the third grade the nurse caught on. She would twist the dials as if she were messing with the machine, but she wasn't really doing anything. I was just flipping my finger as if I could hear it, but I really couldn't. She sent a letter to my mom suggesting I get my hearing tested by a specialist. We found out that I had a nerve deafness. My nerve endings never fully developed during pregnancy.

SCHOOL EXPERIENCES

Throughout junior high and high school, I had a mild hearing impairment -- just enough to bother me and just enough so that my good friends knew that my hearing wasn't as good as theirs. A lot of times it became a burden. Kids will be kids and they don't always understand. They would tease, "Hey, what's the matter with you? Are you deaf?" And I'd say, "Yes, I can't hear that good." I remember it bothered me. I remember when I first tried a hearing aid. I asked my friends if they thought other people would laugh at me or put me down. I remember one of my friends said, "Hey, probably." So I let my hair grow down over my ears. I didn't like wearing a hearing aid.

Since I grew up hearing, more or less, I knew what things sounded like. So it wasn't like I really needed the hearing aid. It amplified more than anything, and even today I need more <u>clarity.</u> I need the amplification too, but more clarity than anything and hearing aids just don't give you that. So now the only time I wear a hearing aid is in the classroom.

I was in vocational classes in high school. I took general shop, metal shop, woodworking, electrical. At that time I never made it a point to tell the instructors I had a hearing impairment. I was never in Special Ed in high school because I grew up with some hearing. I just never made it a point to tell anybody because I didn't want to look different.

It wasn't until I was a senior in high school when one

instructor made it a point to tell everyone I was hearing impaired. That was the first time something like that happened. I shied away from everyone because, as I saw it, everyone shied away from me.

Did you think the instructor was wrong about telling the class?

It was a touchy situation. I think overall it did some good. It made the other students aware, and at the same time it is probably good for the deaf or hearing impaired student. At that age it is going to be hard for the student to motivate himself or herself to come out and say "I'm deaf" or "I'm hearing impaired" to the peer group because they want to be accepted so much by the peer group. So in many ways it wasn't so good. I'm reluctant to say which is the better way. It just depends on the individual.

WORK EXPERIENCES

I've lost a few jobs in my current line of work, auto mechanics, because of my hearing. One time I remember saying to myself, "So, this is what it's going to be like trying to find work."

I finally got a taste of what it's like being hearing impaired in a hearing world. But for this job now [auto mechanic] I was very open and on the line with my boss. I told him and it didn't seem to bother him at all. One thing he made a point of, I guess he's been reading some statistics, because he said, "You'll probably be a better worker than these other guys because one thing I read about is that, in general, disabled make better employees because they know they have to hold onto their jobs and they have to try a little harder." It's worked out fine. He also said any problem that comes up we'll work around it. He told me that and all I could say was "WOW!" He is a good man to work for and everything is going very smoothly.

I work at a gas station. I work on cars, pump gas, make sales, and socialize with the customers. But there are some problems. Let's say someone comes in and I'm going to pump some gas for them. It seems real basic and easy. But if someone has a hearing impairment and the customer is looking in her purse and says "15 dollars" or "15 gallons" -- well, dollars and gallons sound the same to me. Or they might say "seven" and I thought they said "fill it." That's $25.00 that will come out of my paycheck if I make that mistake. So communication can be a problem. I can't tell each and every person that comes in, "Hey, I'm hearing impaired."

Being hearing impaired in a hearing world can be a real burden. There are a lot of things I would like to do that I can't do that I thought about doing while I was younger, but

as I grew older my hearing went down. That is one thing my parents stressed to me, that I'll have to find something that I can do. Yes, it's a burden, but I'm also more patient ... more understanding about life than others. I understand so much more just dealing with other people.

THE VOCATIONAL CLASSROOM

What suggestions do you have for teachers regarding safety in the classroom?

Safety? I just don't see it as that big of a problem. I may be contradicting myself, but I think the teacher should know. Just the teacher being aware that someone in the class is hearing impaired will help so much.

In woodshop, just one person is using the machine at a time. As long as the person is following safety procedures, which you have to know -- about the first two weeks of the class is spent on safety, how to use the equipment, etc. -- you are not allowed to touch the equipment unless you can prove that you know how to use the equipment. As long as the hearing impaired person knows the rules and passes the tests, he won't be any different than the hearing person in regards to using the equipment. If you stop and think about it, there are a lot of deaf and hearing impaired people in the carpentry trade, printing. Printing is a stereotyped trade, but it is a very true stereotype.

Right now I have about an 80 decibel loss in both ears. There is a difference in growing up hearing or growing up in the hearing world. If you compared me with somebody else who has an 80 decibel loss, their speech may not be as clear, they won't be able to use a phone with amplification, or they can't carry on a conversation without using sign. A lot of people can't understand that I'm deaf. I love to see the reactions of doctors. They look at my audiogram and say, "Wow, Brian, you and your audiogram show two different people."

If I were the teacher, I would make it a point during the first class of the semester to ask if there were any hearing impaired students or any other disability in the class. I would like to know about it. I would have been more comfortable if that was done to me. Oh sure, I might not have said something right away. I probably would have waited until after class if the teacher asked in this way. I can't see anyone not saying anything or at least saying something sometime soon. They will feel a lot more comfortable because they realize someone is there -- someone cares. It's important not to make a big deal out of it, that it's OK. Keep it in a light situation and the kid will be more comfortable.

I plan on going to graduate work with a major in sports psychology and a minor in coaching. I plan to coach. I want to stay in athletics. It's a big part of my life and always has been.

Cheryl

I was born deaf, although my parents didn't find out until I was three years old. They were concerned because I hadn't developed any language. I was taken to a doctor where I was then diagnosed as severely deaf.

I was in Central Institute for the Deaf in Missouri from the age of three to the age of six. I learned by the oral method of communication, which involved learning to lipread and learning to use my voice. I learned sign language when I was in college. I was educated in the public school -- grades one through twelve. I didn't receive any special help. I was on my own. I had to put in more effort and more time in order to succeed in the classroom and that was really frustrating.

When I was in high school, I took a Spanish class. The Spanish teacher didn't know how to handle me. She put me in the front row of the class. When she asked questions to the class, each student had to come and stand in front of me to answer the question. It was very embarrassing because I didn't like people to know I was deaf.

WORKING WITH AN INTERPRETER

I can interact with and without an interpreter. An interpreter is needed in a classroom situation, but I'm OK on a one-to-one basis. If there is not an interpreter present, a circular seating arrangement is good for group discussion. If an interpreter is present, then there can be a row by row seating arrangement. In either case, I am comfortable in sharing my feelings and opinions in a group situation.

Sometimes teachers feel that an interpreter is a distraction. The interpreter doesn't want to be a distraction, but yet they have to be positioned (usually in an aisle) so they will know what is going on. Initially, students will focus their attention on the interpreter. But eventually they will realize they have to take notes and gradually they will pay less attention to the interpreter and more attention to the teacher.

The interpreter is the student's ears and nothing more. It is not the interpreter's role to interact with the students. Do not see the interpreter as a <u>person</u> -- they are ears.

The interpreter will sometimes voice back the deaf person's answers, if his or her speech is not clear enough.

THE VOCATIONAL CLASSROOM

Hearing ispaired people should do well in vocational areas. There are lots of hands-on experiences with machinery, etc. Communication doesn't weigh as heavily in the vocational area. Deaf people could really benefit from the taking of vocational classes.

I have some suggestions for vocational teachers:

1. The deaf student can be as independent as a hearing student -- as long as the person knows what is expected from the beginning of the class.

2. No one can hear when everyone is talking at the same time. A good rule for the class is -- only one person speaking at a time.

3. There must be cooperation and team work. We can always work something out. For example, if I were in a preschool class and singing was the activity to be taught, I could play the piano and my team teacher could lead the singing.

4. Do not invest in unnecessary equipment. If I were in a typing class and the teacher was giving a timed test, she could write "5 minutes" on the board, flick the light switch off and on when the test was to begin, and then flick the light switch again when the test was to end.

5. It takes more time and patience on everyone's part if there is a hearing impaired student in the classroom. There must be an understanding between the teacher and the student.

Debbie

I have a hearing impairment with a range between 50-65 decibels. I am also blind in one eye and legally blind in the other. I went to a regular high school where I even took Driver's Education. It was a psychological trip to take Driver's Ed because I knew I was never going to be able to drive a car. It was difficult to be put through it with all the other kids' enthusiasm. It was a constant reminder of yet one more thing I wouldn't be able to do.

I did fine in all my other classes. I didn't receive any Special Education per se, but I did use recorded books. I had some teachers who were opposed to me being in their classes, but they didn't have much choice due to the law, Education for All Handicapped Children. I compensated for my disability -- I'm a fantastic lipreader.

My major problem was Geometry. I could do the Geometry itself, but I would have to guess where to put the letters. My teacher would accuse me of disturbing the class if I got up to look at the board. He wouldn't read off the board, so I would have to guess where the angle was. So, I got a lot of problems wrong -- that was one of my failures.

Most of my other teachers were neutral to me. As long as they didn't have to do anything different, my being in their class didn't bother them. It was up to me to adapt to them, to make changes within myself or the way I did things. In order for a special needs child to succeed in a regular class, he or she is going to have to be smart and to excel. The student will have to change and figure out ways to do things because in the real world, the disabled person is going to have to adapt as much as possible in order to survive.

My advice to high school teachers is not to make it easier for the student. But I don't think there is anything wrong if the teacher was to read what is written on the blackboard. If there is a problem with writing, a student should be allowed the use of a recorder. Adaptations can be made without sacrificing the quality of instruction.

I don't think it is necessary for the entire class to know about my disability. I know I have a disability. I know I have some problems, but does the whole world need to know? It should be left to the discretion of the disabled student whether or not classmates are told about the existence of a

disability. We want to be equal, to be part of the norm. We don't want to be segregated.

Mini-Activities

Following are some mini-activities to encourage students to express their feelings and ideas about disability. Through the activities, students can talk about misconceptions and be assured they are not alone in their ideas.

The use of "role playing a disabled person in a natural social environment has both immediate and long-term effects on interpersonal attitudes toward disabled students. Those who played the role of a disabled person by traveling around the campus in a wheelchair responded significantly more positively than control subjects" (Clore & Jeffery, 1972, p. 110).

As a facilitator, you should caution the participants to expect that the simulations may result in the release of pent-up emotions. A facilitator also needs to be prepared for such a release and make provisions to guide closure to the emotions.

Mini-Activity 1.

OBJECTIVES: To stimulate discussion and bring unspoken thoughts into the open.

PREPARATION: Prepare hand-outs of the open-ended statements shown below and distribute them to participants. A supply of pens or pencils should be available.

EXERCISE: Attitude survey adapted from People Aiding Disabled Students, Office of Disabled Student Services, Florida State University.

1. When I see a handicapped person in public, I feel:

   _____.

2. Handicapped persons make me nervous when:

   _____.

3. Most handicapped people are:

   _____.

4. If I had to choose a disability for myself, I would be:

   _____.

5. If I worked with a handicapped person, I would:

   _____.

6. I wish handicapped people would be:

   _____.

Mini-Activity 2.

OBJECTIVE: To experience the frustration of not being able to perform fine motor tasks.

PREPARATION: Distribute tongue depressors and tape to each student. Individuals are to tape the tongue depressors to the backs of the fingers of their dominant hand.

EXERCISE: Hand out to participants an abbreviated employment application form and ask them to attempt to complete it legibly. The students should be aware of the intensity of their feelings at being unable to manipulate the pen effectively and perform the task efficiently.

Mini-Activity 3.

OBJECTIVE: To increase awareness of non-verbal individuals by experiencing the frustration of ineffective communication.

PREPARATION: Divide the class into pairs. One partner will be the employer, the other a non-verbal employee. Both participants should be conscious of coaching by the employer and the frustration of waiting for a response.

EXERCISE: Pretend that this is a job interview. The verbal employer must ask open-ended questions of the non-verbal employee. For example: "Tell me why I should hire you for this position." "What are your strengths and weaknesses?" The employees may speak with their mouths closed, or write out responses using the opposite hand they normally write with.

Mini-Activity 4.

OBJECTIVES: To be aware of the frustration of being in a dependent role; to become aware of other people's reactions to being fed in public; to understand the level of cooperation needed; to realize how difficult it is to seek help.

PREPARATION: Divide the class into pairs. One partner will feed the other partner (non-feeder) who cannot use his/her hands. The school cafeteria at slowdown time would be ideal for this activity. Partners should be aware of people's reactions to them.

EXERCISE: Partners should agree as to who will be the assistant. The non-feeder cannot use his/her hands once the pair reaches the cafeteria. Therefore, the two must plan how the assistant will select the food, carry the tray, pay for the food, feed the person, and clean up. The assistant is also responsible for eating his or her own meal.

Mini-Activity 5.

OBJECTIVES: To experience the frustration and success of learning a new task; to realize the importance of giving good verbal instructions to a visually impaired person.

PREPARATION: Divide the class into pairs. Distribute a blindfold to each pair. One partner will act as the sighted guide and the other as a visually impaired person. Roles will be switched after a predetermined time.

EXERCISE: The sighted guide gives a set of verbal instructions that will enable the visually impaired person to complete a task; e.g., threading a circuit board. The partners will gradually understand the importance of being specific in directions (e.g., Whose left? How much is a little bit? What is a thingamajig or a doodad?).

Mini-Activity 6.

OBJECTIVE: To experience the frustration of reading with a reversal, a substitution, or an omission problem such as many learning disabled students experience.

PREPARATION: Write on the blackboard or pass out paragraphs with the following example:

"Along all the main tho roughfare of Mest Colfax, you'll finb small, comfortadle family motels with qrices the in $02 to $3s rance. For more dollars a few, you can stay in poqular chains like the Holibay Inn, Warriott's, and Pawaba Inn a long same the street."

EXERCISE: Select one student to read the passage out loud. Listen to how long it takes the person to read the paragraph. What is the comprehension level of the paragraph? What happened in the paragraph? Can you imagine how the learning disabled person feels about reading? What accommodations could you suggest for the person with this type of disability?

Mini-Activity 7.

OBJECTIVE: To increase awareness of visual impairments by experiencing a dependency role.

PREPARATION: Divide the class into pairs. One partner will wear a blindfold over the eyes. The other will serve as a sighted guide and lead the blind partner around the school environment (cafeteria, grounds, etc.). It is important for safety reasons that the guide maintain physical contact with the blind partner.

EXERCISE: The guide should be as non-verbal as possible. The blind partner should verbalize his/her awareness of the surroundings. For example: "Where are you taking me? I smell bacon, so we must be in the cafeteria. I hear a familiar sound, so we are near the elevator." The blind person should do a familiar task, such as dialing the telephone. This will increase his/her confidence in the new role. After a predetermined time limit, the roles should be reversed.

Mini-Activity 8.

OBJECTIVE: To explore attitudes toward the disabled.

PREPARATION: Divide the class into two groups. Each group should have a flip-chart or blackboard and a volunteer to record responses. The two groups should be out of hearing range of each other.

EXERCISE: Ask Group A to list the qualities they associate with the word "disabled." Ask Group B to list the qualities they associate with the word "nondisabled." The groups should then share their lists and reflect on the differences between the lists. Group discussion should center on society's values of physical health and beauty.

Glossary

On the following pages are definitions of words and phrases that may be encountered in readings about or discussions of disabilities. Included are descriptions of handicapping conditions as well as adaptive devices and diagnostic tests.

A

A.B. -- An able-bodied person, also known as a walkee

Accessible -- Refers to facilities that may be used by individuals despite handicapping conditions

Achievement tests -- Designed to measure the student's present functioning level in basic academic skills

Acting out -- A behavioral response to frustration and conflict

Adaptive behavior -- Behavior which is considered appropriate for an individual in a specific context

Adventitious deafness -- Deafness acquired through illness or accident

Agraphia -- Inability to write words

American Sign Language (ASL) -- A system used by the deaf that involves well-defined hand and arm movements that represent concepts

Arthritis -- Inflammation of the joints, occurring as several types of arthritis. Usually fatigue, weakness, stiffness, and pain accompany the disease. Persons often use canes, crutches, or wheelchairs.

Ataxia -- A condition that results in deterioration of the nervous system, causing failure of muscle coordination and irregularity of muscle action. It affects, as a rule, balance and coordination. Intelligence is <u>not</u> affected.

Auditory blending -- Ability to bring together parts that were heard into the whole word

Auditory closure -- Ability to complete words, ideas, and sentences that were heard

Auditory discrimination -- Ability to tell the difference between sounds that are similar; e.g., hearing an angry tone of voice rather than a joking tone of voice

Auditory figure-ground -- Ability to hear a sound over

background noise; e.g., being able to listen to a lecture with the hum of an air conditioner in the background

Auditory memory -- Ability to remember more than one idea or direction at a time

Auditory-motor -- Ability to hear something and then do it; e.g., taking notes in a lecture

Auditory sequencing -- Ability to hear sounds in the correct order; e.g., being able to repeat back a math problem

B

Beery-Buktenica Developmental Test of Visual-Motor Integration (VMI) -- Designed to assess visual perception and fine-motor coordination

C

Cerebral palsy -- A condition caused by damage to the brain usually before, during, or shortly after birth. The brain affects control over voluntary muscles in the arms, legs, tongue, and eyes. Persons with cerebral palsy may speak in an unusual way, swallow with difficulty, distort the face, walk with difficulty, and/or use a mobility aid. They usually have normal or superior intelligence.

D

Diagnostic tests -- Usually a battery of tests, designed to assess the student's functioning level in academic skills and/or in learning processes such as perception, memory, visual-motor skills, concept development, and expressive skills

Directional problems -- Difficulty distinguishing left from right; e.g., trouble learning the layout of a building

Disability -- A permanent limitation or impairment that may or may not interfere with life adjustment and that can be medically described (e.g., wearing glasses)

Discrimination -- Ability to differentiate between two or more visual, auditory, or tactile signals

Dysgraphia -- A disability in which handwriting is disorganized or hard to read

E

Expressive language -- Refers to output through speech, writing, or gesture

F

Fine motor -- Use of small motor muscles involved in such tasks as writing or threading a needle

Finger-spelling -- A communication system used by persons with hearing impairments that involves using the hands and fingers to indicate each letter of the alphabet and allows words to be spelled out letter-by-letter

Form perception -- Ability to perceive pertinent detail in objects or in pictorial or graphic material

G

Grabber -- A long wooden scissors-shaped device with a magnet on the end for picking up objects

H

Hand brace -- A metal device (splint) that aids in hand functions such as writing, feeding, and driving

Handicap -- A cumulative result of the obstacles that disability interposes between the individual and his or her maximum functioning level (e.g., in interpersonal relationships)

Hidden handicap -- A disability that is not readily apparent

I

Imaging ability -- Ability to mentally picture an object and then put it together

K

Key Math Diagnostic Arithmetic Test -- Designed to assess mathematical skills

L

Least restrictive environment (LRE) -- That setting in which, to the maximum extent appropriate, individuals with disabilities are educated with nondisabled persons

M

Mainstreaming -- Refers to bringing the handicapped person into the major work and traffic flow of the facilities (Zimmer, 1981, p. 194)

Mobility training -- A mental and sensory orientation to the environment and to physical movement

Motor-Free Visual Perception Test (MVPT) -- Designed to measure overall visual perceptual processing ability

Multiple sclerosis -- A disease of the nervous system wherein muscle control, speech, balance, and other bodily functions may be affected. Symptoms are not consistently present, which means the individual may be able to live an independent lifestyle. Many people who have this disease use wheelchairs.

Muscle spasm -- A repeating muscle contraction that may occur when a person (usually with a spinal cord injury) receives a stimulus such as heat, cold, pressure, or stress below the point of injury. The nerve impulse travels to the point of injury where it is blocked, then returns along the nerve, creating the spasm.

Muscular dystrophy -- A group of diseases characterized by progressive wasting and weakening of the muscles

O

Optacon -- An electronic device that is moved across a line of type, converting light patterns from the type into a tactile pattern

Oral communication -- A system that uses lipreading to receive spoken language, and oral speech to speak with others

P

Paraplegia -- Paralysis of two limbs

Peabody Individual Achievement Test (PIAT) -- Designed

to provide a wide-range screening measure of reading, spelling, mathematics, and general achievement

Peabody Picture Vocabulary Test (PPVT) -- Designed to assess a student's hearing vocabulary and to provide an estimate of verbal intelligence

Perseveration -- Continued repetition of words or motions to the point where they become meaningless

Q

Quadriplegia -- Paralysis of four limbs

R

Ramp -- A ramp should be at least four feet wide and have a gradient no greater than 1:12

Readily accessible -- Access that is equivalent in terms of ease and convenience for nondisabled and disabled employees (Zimmer, 1981, p. 191)

Reasonable accommodation -- Adaptation of the work environment or requirements in order to accommodate the physical or mental limitations of a disabled employee

S

Size discrimination -- Ability to distinguish differences in sizes of objects

Spatial discrimination -- Ability to comprehend forms in space and understand relationships between plane and solid objects

Speech compressors -- Devices that allow an individual to select the listening speed of audiotaped materials

T

Tactual perception -- Ability to distinguish temperature, texture, and contour

Talking calculators -- May be hand-held or desk-type, with a variety of basic functions from independent memory to accumulating memory, sometimes with Braille output

Task analysis -- A process of breaking down a task into its component parts, defining the requirements for

mastery of each step, and evaluating mastery before moving on to the next step

Telecommunication devices for the deaf (TDD's) -- Instruments that allow deaf persons to communicate over the telephone. One example is a teletypewriter (TTY) that must be located at both telephone stations. Some devices type the message on a paper roll, while others display the message on a computer-like screen.

Total communication -- A system for persons with hearing impairments that uses all forms of communication: lipreading, sign language, finger-spelling gestures, and facial expression

V

Visual figure-ground -- Ability to see a specific image within a competing background; e.g., reading a sentence in the middle of a page

Visual memory -- Ability to remember what has been seen

Visual-motor -- Ability to see something and then do it; e.g., copying off a blackboard

Visual perception -- Ability to receive and process information through the sense of sight

W

Wide Range Achievement Test (WRAT) -- Designed to assess skills in reading (word recognition, written spelling, arithmetic computation)

Woodcock Reading Mastery Tests -- Designed to measure a wide range of reading skills, including word comprehension, passage comprehension, and word attack

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